

Patent Claims:

1. A method of determining the blood pressure, in which a pressure sensor is applied to an individual's limb to detect the blood pressure prevailing in said limb and also the orientation of said limb by means of an orientation sensing unit (5) provided in a housing of a blood pressure measuring device,

characterized in that that the orientation sensing unit (5) delivers an electrical signal responsive to the detected orientation of the limb, and that said electrical signal is further processed.

2. The method as claimed in claim 1,
characterized in that the detected blood pressure is corrected in an evaluating unit (4) in response to the detected orientation of the individual's limb.

3. The method as claimed in claim 1,
characterized in that the angular position (u) of the individual's limb, in particular the forearm, is detected by means of an inclination sensor (5), and that the detected blood pressure is corrected in response to said angular position.

4. The method as claimed in claim 1 or 2,
characterized in that a motion, in particular speed or acceleration, of the individual's limb is detected while the pressure is being sensed, and that the detected blood pressure is corrected in response to said motion, in particular speed or acceleration of said limb.

5. The method as claimed in at least one of the preceding claims,

characterized in that a readout provided via a display device by user interaction provides a feedback indicative of whether the measurement position is in a correct angular range of the limb from which the measurement is taken, and/or the readout causes the user, by interaction, to adopt the correct position for measurement.

6. A blood pressure measuring device comprising a pressure sensor for generating a pressure signal, an application unit for applying the pressure sensor to an individual's limb, and an evaluating unit for evaluating the pressure signal, with an orientation sensing unit (5) being provided in the interior of a housing of the blood pressure measuring device for detecting the limb's orientation,

characterized in that the orientation sensing unit (5) is capable of delivering, for further processing, an electrical signal responsive to the limb's orientation.

7. The blood pressure measuring device as claimed in claim 6,

characterized in that the evaluating unit (4) comprises a correcting unit for correcting the pressure signal in response to the detected orientation.

8. The blood pressure measuring device as claimed in claim 5,

characterized in that the orientation sensing unit comprises an inclination sensor (5) which detects the inclination of the individual's limb to which the pressure sensor (2) is applied.

9. The blood pressure measuring device as claimed in claim 5 or 6,

characterized in that a motion sensing unit (5) for detecting a motion, in particular a speed or an acceleration of the individual's limb, is provided, and that said evaluating unit (4) comprises a correcting unit for correcting the pressure signal in response to the detected motion, in particular the speed or acceleration.

10. The blood pressure measuring device as claimed in claim 7,

characterized in that said motion sensing unit comprises the inclination sensor (5) and a differentiating unit connected thereto.

11. The blood pressure measuring device as claimed in at least one of the claims 5 to 8,

characterized in that the orientation sensing unit (5) and the pressure sensor (2) are connected to the evaluating unit (4) via a timing unit (6).

12. The blood pressure measuring device as claimed in any one of the claims 5 to 9,

characterized in that a storage unit (7) is provided for the storage of reference data.

13. The blood pressure measuring device as claimed in any one of the claims 5 to 10,

characterized in that the application unit (1) for applying the pressure sensor (2) is constructed to fit an individual's wrist.

14. The blood pressure measuring device as claimed in any one of the claims 5 to 11, **characterized in that** a display device is provided providing a readout, in particular in the form of two arrows pointing in opposite directions, of a correct and/or incorrect angular range or a movement of the blood pressure measuring device and/or a prompt for correcting the measurement position.

15. The blood pressure measuring device as claimed in any one of the claims 5 to 12, **characterized in that** it comprises a measurement value storage or a device for determining the validity of the measurement results, hence enabling a readout of improper measurement conditions to be provided in response to the measurement position, the measurement inclination angle or any movement taking place during the measurement cycle.

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